

**AMPK $\alpha$ 2 Polyclonal Antibody**

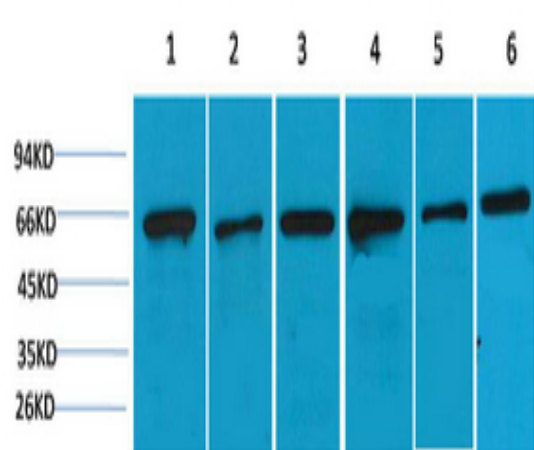
<b>Catalog No :</b>	YN5680
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB
<b>Target :</b>	AMPK $\alpha$ 2
<b>Fields :</b>	>>FoxO signaling pathway;>>Autophagy - animal;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>AMPK signaling pathway;>>Longevity regulating pathway;>>Longevity regulating pathway - multiple species;>>Apelin signaling pathway;>>Tight junction;>>Circadian rhythm;>>Thermogenesis;>>Insulin signaling pathway;>>Adipocytokine signaling pathway;>>Oxytocin signaling pathway;>>Glucagon signaling pathway;>>Insulin resistance;>>Non-alcoholic fatty liver disease;>>Alcoholic liver disease;>>Hypertrophic cardiomyopathy;>>Fluid shear stress and atherosclerosis
<b>Gene Name :</b>	PRKAA2
<b>Protein Name :</b>	5'-AMP-activated protein kinase catalytic subunit alpha-2
<b>Human Gene Id :</b>	5563
<b>Human Swiss Prot No :</b>	P54646
<b>Mouse Swiss Prot No :</b>	Q8BRK8
<b>Rat Swiss Prot No :</b>	Q09137
<b>Immunogen :</b>	Recombinant Protein of AMPK $\alpha$ 2
<b>Specificity :</b>	The antibody detects endogenous AMPK $\alpha$ 2 protein.
<b>Formulation :</b>	PBS, pH 7.4, containing 0.5%BSA, 0.02% sodium azide as Preservative and 50% Glycerol.
<b>Source :</b>	Polyclonal, Rabbit,IgG

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<b>Dilution :</b>	WB 1:1000-2000
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Observed Band :</b>	62kD
<b>Cell Pathway :</b>	Regulation of autophagy;mTOR;Insulin_Receptor;Adipocytokine;Hypertrophic cardiomyopathy (HCM);
<b>Background :</b>	<p>The protein encoded by this gene is a catalytic subunit of the AMP-activated protein kinase (AMPK). AMPK is a heterotrimer consisting of an alpha catalytic subunit, and non-catalytic beta and gamma subunits. AMPK is an important energy-sensing enzyme that monitors cellular energy status. In response to cellular metabolic stresses, AMPK is activated, and thus phosphorylates and inactivates acetyl-CoA carboxylase (ACC) and beta-hydroxy beta-methylglutaryl-CoA reductase (HMGCR), key enzymes involved in regulating de novo biosynthesis of fatty acid and cholesterol. Studies of the mouse counterpart suggest that this catalytic subunit may control whole-body insulin sensitivity and is necessary for maintaining myocardial energy homeostasis during ischemia. [provided by RefSeq, Jul 2008],</p>
<b>Function :</b>	<p>catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Binding of AMP results in allosteric activation, inducing phosphorylation on Thr-172 by STK11 in complex with STE20-related adapter-alpha (STRAD alpha) pseudo kinase and CAB39. Also activated by phosphorylation by CAMKK2 triggered by a rise in intracellular calcium ions, without detectable changes in the AMP/ATP ratio.,function:Responsible for the regulation of fatty acid synthesis by phosphorylation of acetyl-CoA carboxylase. It also regulates cholesterol synthesis via phosphorylation and inactivation of hormone-sensitive lipase and hydroxymethylglutaryl-CoA reductase. Appears to act as a metabolic stress-sensing protein kinase switching off biosynthetic pathways when cellular ATP levels are depleted and when 5'-AMP rises in response to fuel limitation and/or hypoxia. This is a catalytic s</p>
<b>Subcellular Location :</b>	Cytoplasm . Nucleus . In response to stress, recruited by p53/TP53 to specific promoters. .
<b>Expression :</b>	Heart,Skeletal muscle,

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## Products Images



Western blot analysis of 1) Hela, 2) 293T, 3) C2C12, 4) 3T3, 5) Rat Heart, 6) Rat Brain using AMPK $\alpha$ 2 Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000